



## Return of the Vision Video

*Can corporate vision videos serve as setting for participation?*

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*Published in:*  
Nordic Design Research (NORDES)

*Publication date:*  
2017

*Document Version*  
Accepted author manuscript, peer reviewed version

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*  
Vistisen, P., & Poulsen, S. B. (2017). Return of the Vision Video: Can corporate vision videos serve as setting for participation? . *Nordic Design Research (NORDES)*, (7).

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# RETURN OF THE VISION VIDEO: CAN CORPORATE VISION VIDEOS SERVE AS SETTING FOR PARTICIPATION?

## ARTICULATIONS

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## ABSTRACT

This paper examines the role of corporate vision videos as a possible setting for participation when exploring the future potentials (and pitfalls) of new technological concepts. We propose that through the recent decade's rise web 2.0 platforms, and the viral effects of user sharing, the corporate vision video of today might take on a significantly different role than before, and act as a participatory design approach. This address the changing landscaping for participatory and user-involved design processes, in the wake of new digital forms of participation, communication and collaboration, which have radically changed the possible power dynamics of the production life cycle of new product developments. Through a case study, we pose the question of whether the online engagements around corporate vision videos can be viewed as a form of participation in a design process, and thus revitalize the relevance of vision videos as a design resource?

## INTRODUCTION

Corporate vision videos are a genre of moving images which act as an externalisation of a company's strategy, made manifest through imagining how a strategy could result in a specific - and often futuristic - scenario of how the value proposition might look like if the strategy

is followed (Buur & Ylirisky 2007, Bergman et al 2004). As such, vision videos differ from traditional storytelling, such as science fiction, since the video scenario is grounded in the reality of the company here and now, and aimed towards the possible effects of current or new strategic choices. Thus, the assumption is, that vision videos show a systematic look into a possible future for the corporation, and thus in itself becomes a theory of what might be. This makes the videos act as metaphorical flagpoles for the company's employees - meant to guide them from a distance towards a idea of a concept, rather than through a formal specification. The intent is to demonstrate potentials, and drive the company's initiatives and investments, as well as spark the imagination of what can and should be made.

Especially within the field of ICT, vision videos have often been used as an approach to explore the strategic potential of new technology, often long before it is feasible to realise any technical implementation or prototypes. Already in 1987, Apple's Knowledge Navigator videos made use of animation to portray the future use of technologies - then only on the R&D stage (Buxton 2010, Dubberly 2007).



Figure 1: Still from Apple's 1987 'Knowledge Navigator' corporate vision video.

Together with other examples from Sun Microsystems (Tognazzini 1994) and Nokia (Ylirisky & Buur 2007) a

programme of using video in design visions has existed for at least 30 years.

A specific trait of vision videos is their level of visual fidelity. Compared to related ways of using temporal media in design (e.g. Zimmerman 2005, Mackay et al 2000, Vistisen 2016), vision videos almost exclusively employ a high level of visual fidelity, resembling real implemented products. By employing special effects and theatrics, vision videos simulate advanced interfaces, and users interacting with them in a natural use context, as if the concept actually existed, and the user scenario actually happened.

But these characteristics have also led to criticism of whether vision videos actually benefit the design process in any meaningful way. Buxton (2010), Dubberly (2007), Ylirisky & Buur (2007), and Tognazzi (1994) all highlight a series of critiques based on vision videos produced from 1987 to 2009. Buxton argues that vision videos becomes too persuasive, by portraying concepts which might not be finite, but are interpreted that way by the employees, due to both the fidelity, but also the polished way the technology's implementation is often portrayed. Tognazzi and Dubberly provided a similar critique of loss of control from their experience in using vision videos as internal design deliverables. Finally, Buur & Ylirisky's critique provides a pragmatic evaluation of the time and resources spent on making a high fidelity vision video for Nokia's future concepts, versus the actual strategic benefits it created among either the employees or the board of directors at Nokia. Their conclusion was, that video is a viable tool to sketch, but that the role of high fidelity vision video was more questionable.

## PARTICIPATION THROUGH VISION VIDEO?

The short outlined background above indicates bit of a paradox. On one side, corporate vision videos has been widely used in the ICT industry for decades, while their value at the same time historically has been frowned upon as being too persuasive, didactic, and costly for being of much use as a creative or collaborative tool in the design process. We argue that the critique of the approach is better understood as indicating that the role of the vision video might not be solely as an internal design deliverable. If we examine in which research environments the existing corporate vision videos are currently being referenced, we see an overweight of contributions, referencing the videos, coming from the rather new field of 'design fiction' - "...the deliberate use of diegetic prototypes to suspend disbelief about change" (Sterling 2013). From this point of view, the vision videos act as diegetic prototypes for a proposed new use of technology, and the goal is not just to set a guideline for an internal vision, but to invite others to reflect upon the discursive space of the video.

If considered through the lens of design fiction, vision videos become an externally oriented design deliverable, with the goal of obtaining feedback,

critique and new ideas from a larger pool of stakeholders - including potential end-users. This somewhat frames an ontological political concern (Gaver 2012) in videos by letting a multitude of stakeholder's comment upon what potentially could be released by the corporation. In fact, some of the most recent examples of corporate vision videos, coming from corporations as diverse as e.g. Jaguar, Google, and IKEA, seems to have taken this externally oriented approach, by submitting their vision videos to social media platforms such as Youtube, Vimeo and Twitter. From the organic viral mechanisms of these platforms, bloggers as well as more formally organised media outlets has picked up the vision videos as 'trending stories', sparking even further interest. Thus, recent vision videos have gathered millions of views on social platforms, and fostered thousands of comments and feedback for the corporations to gather.

We propose that this changed pattern of using corporate vision video, in combination with social web 2.0 platforms, indicates a new configuration of user participation, extending on the contributions from e.g. Vines et al (2013). The fundamental idea of participatory design is that people besides the associated design team possess valuable knowledge and hereby can contribute to a design process by various means (Bødker et al 1993). When releasing a vision video as a publicly available design fiction, the user participation might be seen as pragmatic effort from the corporation to gather inputs, and probe the interest from the public, before investing heavier R&D resources on actual technical implementations. Through the social technologies, the potential users are given a voice, but also potentially a way to influence design decisions by taking part in the formation of a public discursive space around the concept, in line with what Hagen & Robertson (2009) categorizes as 'opening up' the design process for external participation. We argue this positions the vision video as a tool, which leverage the classic values of participatory design (e.g. Halskov & Hansen 2015) by democratically involving the end-user, listening to a variety of perspectives, in combination with framing the design space around a diegetic prototype, inviting the users from around the world to reflect upon the product. As such, this contributes to the knowledge of the potentials and challenges of large-scale participatory design provided by e.g. Oosterveen & van den Besselaar (2004) and Simonsen & Hertzum (2008).

## RESEARCH SETUP

To analyse this phenomenon of corporate vision videos, we have collected and sampled the user feedback and interaction of a specific instantiation of a recent corporate vision video case, the Land Rover case, sampled throughout the last two years.



Figure 2: The vision video of ‘The Transparent Bonnet system’ showing the SUV approaching a hill, prompting the augmented reality (AR) HUD to made the front hood semi transparent while climbing the hill, before it agains turns solid (Land Rover UK 2014a).

#### THE LAND ROVER CASE

In April 2014, at the New York Auto Show, Land Rover presented its concept for their new SUV car, which included a so-called ‘Transparent Bonnet system’. The concept proposed a system using augmented reality (AR) cameras to make the hood semitransparent to make navigating up-close obstacles like rocks and narrow tracks easier and safer.

The announcement was accompanied by a one minute vision video depicting the AR system in use - showing how the SUV became semitransparent when approaching a steep hill. However, in the top right corner of the video, a label stated that the video was a ‘Virtual Prototype in Testing’, which indicated that it was a diegetic prototype.

#### COLLECTED DATA

The Land Rover vision video was shared originally through Land Rovers three Youtube accounts (US, UK and Global). However, the video spread quickly to both other online media outlets’ Youtube accounts, as well as onto private users’ accounts. Thus, to get a clear picture of the online participation, we sampled all identified instances on Youtube which featured the vision video. We identified 25 separate instances based on a series of search keywords and synonyms (appendix 1), which had an accumulated 2.232.263 video views and 310 comments (as of 2/12/2016).

Youtube source	Views	Comments
<a href="#">Land Rover USA</a>	564.231	90
<a href="#">Land Rover UK</a>	675.170	86
<a href="#">Land Rover</a>	692.634	79
<a href="#">MOTOR1</a>	122.441	9
<a href="#">GeoBeats News</a>	4.181	0
<a href="#">E Birmingham</a>	4.060	1

<a href="#">ODN</a>	34.429	14
<a href="#">TestDriven</a>	107.454	10
<a href="#">CARWP</a>	5006	0
<a href="#">NEWCARNET</a>	459	1
<a href="#">Autofacil</a>	423	0
<a href="#">ProgramaVrum</a>	4147	0
<a href="#">Land Rover Russia</a>	1429	1
<a href="#">World Insiders</a>	265	0
<a href="#">Bloomberg</a>	10.418	2
<a href="#">Official HD Mega Trailers</a>	531	1
<a href="#">Autoline Network</a>	3459	2
<a href="#">CNET KOREA</a>	7127	13
<a href="#">RedditNewsNow</a>	615	0
<a href="#">Jaguar Landrover KH Official</a>	404	0
<a href="#">Jaguar Land Rover Careers</a>	1005	1
<a href="#">YsFalgz</a>	1304	0
<a href="#">Land Rover Journal</a>	231	0
<a href="#">Republica Soferilor</a>	226	0
<a href="#">Skiddmark</a>	614	0
<b>Total</b>	<b>2242263</b>	<b>310</b>

Figure 3: The sampled Youtube sites featuring the Land Rover vision video, as well as the views and comments counted. For the detailed mapping see appendix 1.

Out of the comments, 33 of them were duplicates, and has thus not been included more than once, bringing the total unique number down to 277 comments.

#### ANALYSIS OF PARTICIPATION

For the analytical treatment of the collected user participation data we build a framework consisting of four opposite ends: serious vs. unserious, and constructive vs. Unconstructive (figure 4). ‘Serious’ and ‘unserious’ is drawn from the literature on online

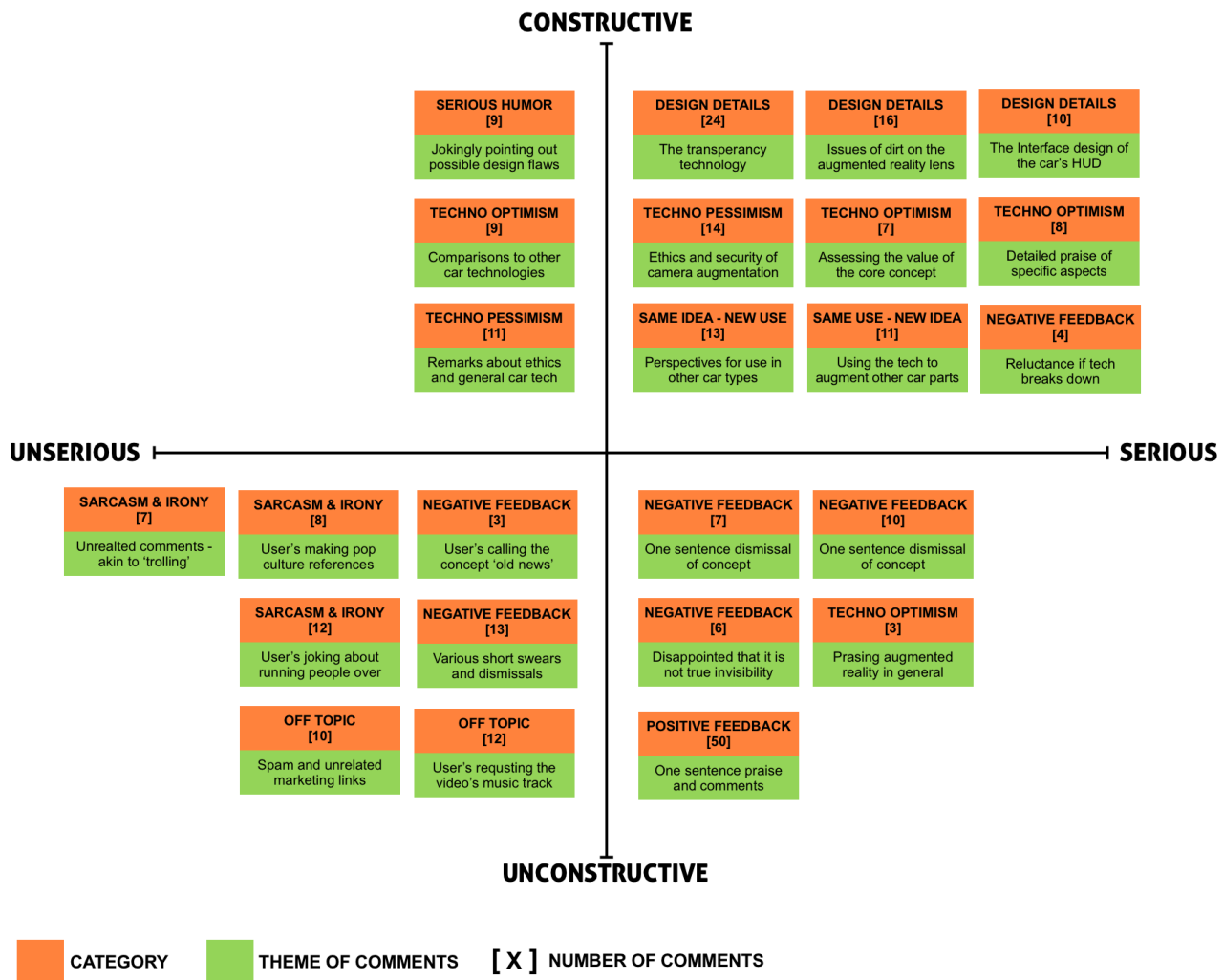


Figure 4: The full mapping in the framework consisting of the four opposing blocks: constructive/unconstructive, and serious/unserious. See full data set in appendix 1.

participation culture (Jenkins 2006), where ‘serious’ is the equivalent to strong communities’ engagement such as found in e.g. fandoms, ‘unserious’ is found in the sarcastic and often derailing discourse created by so-called ‘trolls’ (Hardaker 2010). The ‘constructive’ and ‘unconstructive’ dimension is to be understood as the quality or value of the information in terms of informing the design process. We draw on this dimension from how e.g. Sanders & Stappers (2008) and Vink et al (2008) and their notions of assessing stakeholder involvements in participatory design. Here constructive feedback is something which helps inform further design moves, and unconstructive feedback is either stagnant or too ambiguous to use in the design decision making.

We mapped the 277 comments from the various Youtube outlets in a qualitative assessment of which block they represented based upon the characteristics of what was written. Whenever a cluster formed, understood as when a specific discourse had been recurring in multiple instances, it was mapped as a separate theme shared by all the comments in the cluster. A total of 24 themes were formed, ranging from

3 to 50 comments in each theme. On a cross examination between the identified themes, 10 categories could be identified as being representatives for multiple themes, such as ‘Positive Feedback’ and ‘Design Details’. In this thematization and categorization we are inspired by the qualitative data analysis traditions of e.g. Kvale & Brinkmann (2009).

The block with the most comments was the constructive/serious block. This indicates that the dominating discourse, created around the corporate vision video, was comments directly addressing aspects of the design, with nuanced arguments and substantiated critique. This result is surprising, since the principal expectation of comments made on semi-anonymous web 2.0 platforms would be a higher degree of unconstructive comments (Phillips 2015). The unconstructive/unserious block was the third most represented block, with the unconstructive/serious block coming in as the second most represented, while the constructive/unserious was the least represented.

For the focus of this paper, we will focus on taking the constructive/serious block up for a more thorough



treatment as this is the block, which represents the highest level of potential user participation.

#### CONSTRUCTIVE USER PARTICIPATION

One of the very noticeable differences in the constructive/serious block, compared to the rest of the mapping, is how the majority of the comments take place in threads of users actually responding to and in reference to each other. In this manner, we see examples of users both discussing core functions of the concept, as well as supporting each other's understanding of the technical aspects of the concept (figure 5).

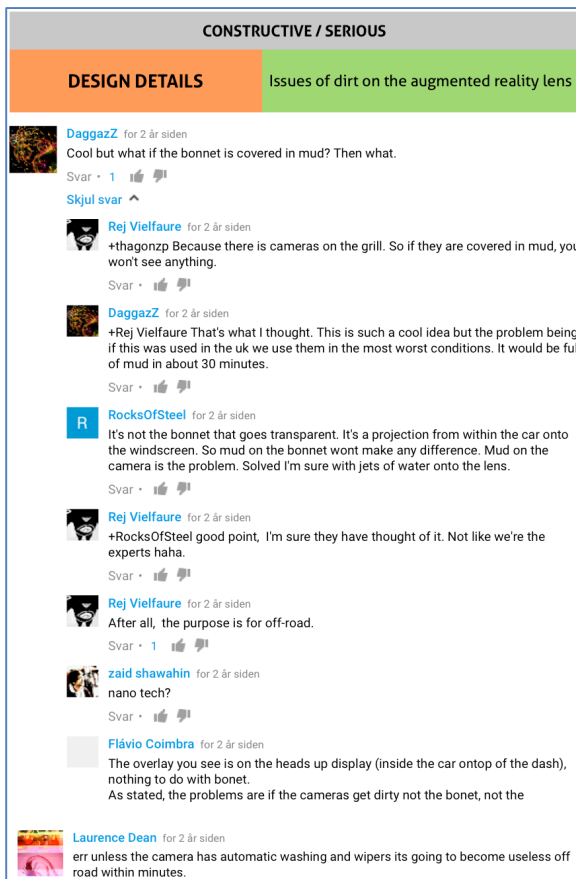


Figure 5: The thread of users commenting upon the potential drawback of using AR off-road due to the dirt covering the camera lenses – both pointing out problems and proposing solutions.

In this thread, we see the comments center around the contextual challenge of using AR in an off-road car setting. Following this, it is interesting to note, how one of the users jokingly note how they are not ‘the experts’, which is interesting insofar as it shows us a paradox between the actual quality of the discussion (revealing a possible design flaw of this specific use of AR), and the role the vision video is framed to have (a virtual prototype in testing, but shared as part of a press release about the upcoming car). With the intent of the vision video not aimed at asking the users questions or other ways of inviting participation, some of the potential conversations are stopped before they might have been debated fully.

A similar situation played out when some users discussed the possible security and legal concerns of the technology (figure 6).

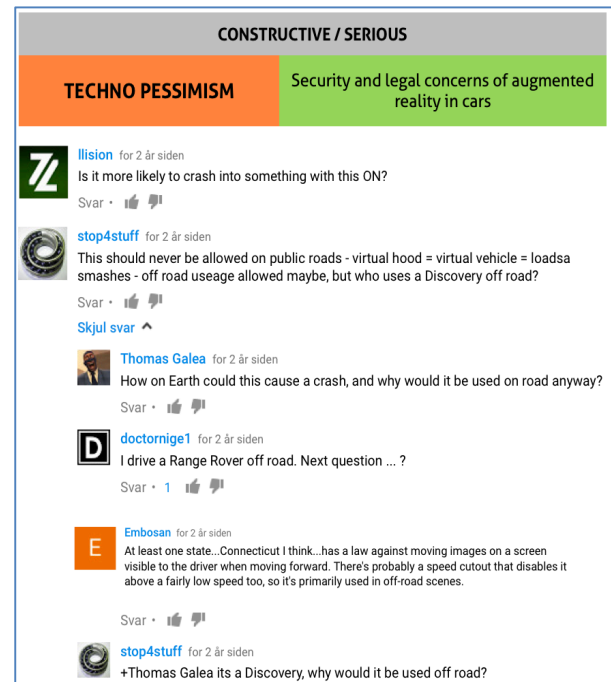


Figure 6: Examples of users addressing possible security or ethical issues in having moving images distracting the driver.

The first comment addresses a question of security - will AR take the attention away from the road a thus increase the risk of a crash? The conversation is further elaborated with details of the potential problem, but is quickly taken in a direction of whether the specific car model is actually suitable for off- and on-road driving. Had the rhetoric in either the vision video or its accompanying description focused on asking more specifically into which concerns the users might have in a specific context, the framing of this type of discussion might have been clearer. However, the example also shows how it only takes another users participation in the thread to further raise the participatory value of the comments, when commenting on how this technology might inhibit the car from road driving in a specific state in the US. Thus, the participation raised a security concern, elaborated it, and ended up with detailing possible legal issues to be cleared out before the technology would be viable on the US market.

#### CONSTRUCTIVE ENOUGH TO BECOME REAL

An interesting theme formed in the constructive/serious block around using the same AR technology, but with a different purpose in the cars. Instead of using the technology to make the front hood transparent in off-road cars, a number of users discuss the potential of using the technology to instead avoid blind angles from the A and B pillars in the Land Rover (figure 7).

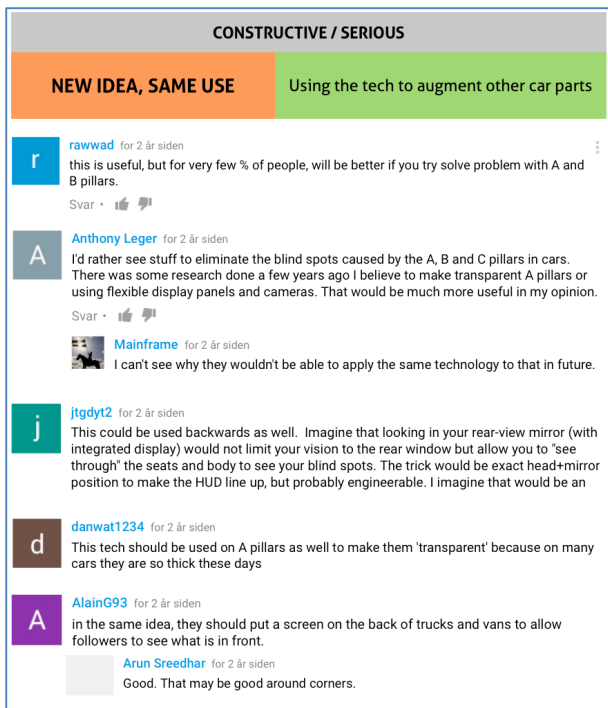


Figure 7: Examples of one of the themes in which users discuss ways to apply the AR concept to reduce blind angles.

The discussions begin by praising the utility of the concept, but criticizing it to not solve a problem for the broader audience of car users, before proposing using the technology to make the pillars on the cars transparent instead. Two other users discuss how this technology has already been showcased to be possible, and a fourth users takes the idea even further by arguing for building the display system into the rear-view mirror. Another category which contained a similar theme included discussions of how this could be applied in other vehicles, such as trucks, putting a further emphasis on the problem of the A pillars giving blind angles.

We argue that these themes reveal a very reflective participatory involvement from the users, both giving feedback to the existing, as well as proposing new and potentially more useful domains for the technology. Furthermore, most of the participation in these blocks are also formulated as arguments which clearly also states their feedback as new proposals or comments on other proposals. As such, the comments need little translation or interpretation to understand the conceptual model of the users' way of understanding the concepts, or what their rationale for their ideas are.

This block provides further merit to the hypothesis that the user participation around corporate vision videos on web 2.0 can in fact be constructive enough to potentially inform the design process. After the Land Rover vision video launched in 2014, 7 months passed before Land Rover made new announcements on their R&D efforts on the concept. However, when they launched their next news about the concept, with a new vision video launched to Youtube and media outlets in December

2014, the AR concept had changed. Now, Land Rover focused on showing the technology being used for city driving, and to make the A and B pillars of the car transparent, while also tracking the person walking in front of the car (figure 8).



Figure 8: The second corporate vision video, released 7 months after the first one - now having changed the use of AR to the pillars of the car (Land Rover UK, 2014).

We can only speculate whether Land Rover has gathered and sampled the users' comments and interactions around the vision video (we reached out, but the company declines comments on their engineering process), and used them in the further design process. However, we still argue that comparing the later iteration state of the concept with the initial concepts online user reflections can indicate whether it is fair to claim that the user comments can and should be regarded as a potentially important source of user participation in the design process. Thus, the user feedback, especially arising from the fact that these comments are given as threads of users discussing the concept with each other, rather than just giving singular comments, indicate how the users' participation can actually be constructive enough to provide novel and relevant design ideas for the proposed technology, which is actually on par with how the corporation themselves ended up iterating on the concept.

## DISCUSSION

Research exist on the topic of using online communities and virtual platforms as vehicles for participatory design (e.g. Reyes & Finken 2012, Hagen & Robertson 2009, Näkki 2011). However, fewer contributions has examined the kind of participation, where users are not invited or actively focused in the participatory process, but rather participates through the natural unfolding of their online behavior around a specific design deliverable like we have seen in this paper with the corporate vision video from Land Rover. From an observer point of view, this positions the design researcher as a total observer in the participatory situation, being mainly responsible for creating, sharing and spreading the design deliverable, and afterwards gather and systemize the feedback given from the users, and assess the comments value in informing the design process.

But is what we have seen then collaboration? or even participation? And are there ethical concerns in leveraging on how an online community comments, reflects and interprets a design deliverable, without clear consent or knowledge of what their participation actually is used for? Normally, a comment on e.g. a public web site is accessible to every user, and thus the user is explicitly making his or her reflection available for other users to further reflect upon, and thus further participate in the discourse created. Furthermore, due to the open access of the shared reflections and comments, every user can essentially collect and use other users' comments - even though this is generally not a common behavior (Li & Bernoff 2011). But if design researchers use these communities and their participation as a resource for the design process, are designers then obligated to state this as their explicit goal in e.g. the description text on Youtube? Sterling (2013) argued how one of the most important aspect of design fiction was to allow the viewer to return the here and now reality, to make up their own mind about the consequences and promise of the diegetic prototype depicted. The vision video should not only suspend disbelief about change, but also only grab the viewers' attention and imagination for a short time, before guiding them back to the current status of the technology or concept again. Diegetic prototypes, implicit or explicit, exists to show and argue that a technology can and should exist in the real world, and thus, as Kirby (2010) describes, has a rhetoric aimed at showing both necessity, normalcy and viability, while maintaining the fictional take on the real-world ontology.

However, this rhetoric also holds much persuasion, and as we have seen in the Land Rover case, some users actually comment on the concept as if it was a real product - some actually indicating that they believe it is. This lack, of explicit intent and transparency of the state of the product, is one of the critical remarks made by both Buxton (2010) and Dubberly (2007) about the generation of vision videos created and used before the rise of web 2.0 media and the new wave of vision videos. Corporate vision videos must leverage on the lessons learned from the design fiction discourse, and explicitly state the intent behind articulating the design concept through a vision video, which has yet to see real production. So to speak, the articulations must match the purpose, be it participation, feedback and criticism, to not end up as just flashy marketing of non-existing products, or ideas building up expectations which cannot be fulfilled by the realized product.

#### CHALLENGE OF ASSESSING STAKEHOLDERS

As has been pointed to by some of the early attempts of large scale online participatory design (e.g. Oosterveen & Besselaar 2004, Simon & Robertson 2012), the challenge of identifying and communicating with relevant stakeholders is much higher online, than in the traditional workplace context of participatory design. The asynchronous nature of the participation, which

might spike upon the initial sharing of the video, and suddenly pick up momentum again some time later, makes for a continuous introduction of new potential stakeholders. Thus, when assessing the bulk of participation, a video has generated, the design researcher must take a reverse look upon the material to assess the relevant stakeholders. Here, the patterns emerging in our mapping indicates might act as a reversed organizational principle for this identification.

When identifying feedback in the unconstructive/unserious block the value in the user participation has little relevance or use for the design process. The unconstructive/serious block reveals surface level feedback, which can at best be seen as immediate reactions where the stakeholders can be grouped, rather than assessed individually - as when 50 various comments praise the Land Rover concept positively. The constructive/unserious block holds potentially valuable and important user feedback, but require a deeper interpretive reading for the insights to be gathered, and makes the user participation in this block relevant, but challenging. Finally, the constructive/serious block represents what a participatory design process would see as the core stakeholders, providing relevant and often detailed feedback upon the design issue at hand. A useful way of thinking about this block of users is as a community of shared interests, sharing a common involvement for a short period of time online. Here, the constructive and serious users simply share another common goal and involvement, than the unserious and unconstructive - they are essentially different community discourses emerging and participating on the same design issue.

As such, we can not specify the individual stakeholders for assessing a corporate vision video spread through web 2.0 platforms, but rather specify which type of the community involvements output we will devote our research focus upon. Building upon this, further studies might be conducted on which value it would have, to engage in more active dialogues with the identified users participating on the online vision videos. This would also further qualify our initial insights into the power structures of using online communities as a participatory resource in design.

#### CONCLUSIONS

In this paper, we have examined the question of whether the online engagements around corporate vision videos can be viewed as a form of participation in a design process, and thus revitalize the relevance of corporate vision videos as a design resource?

The corporate vision videos can act as diegetic prototype, and combined with web 2.0 media we have shown indications of that this might also generate valuable participatory feedback for the design process. As noted with the Land Rover case, some of the user discussions about the design of the Land Rover model are actually represented in the latest real world



prototype of Land Rovers transparent car technology. This marks an interesting point of venture into how other ideas, depicted in corporate vision videos, come to life as real products, and whether the online participation can be accounted for, like the case with Land Rover.

With the ability to critique, comment, share new ideas and questions, the participating users potentially gets direct access to influence the design. The question remains whether the users are aware of the potential their participation holds, and whether a more explicit appeal would affect their participation positively or negatively. However, based on our initial pilot study with the Land Rover case we argue to have shown that there is a clear and present participatory potential in corporate vision videos, when being distributed through web 2.0 technologies.

## REFERENCES

- Bergman, E., Lund, A., Dubberly, H., Tognazzini, B., Intille, S., 2004. Video visions of the future: a critical review, in: CHI'04 Extended Abstracts on Human Factors in Computing Systems. ACM.
- Buxton, B., 2010. Sketching User Experiences. Morgan Kaufmann.
- Bødker, S., Grønbaek, K., Kyng, M., 1995. Human-computer Interaction, in: Baecker, R.M., Grudin, J., Buxton, W.A.S., Greenberg, S. (Eds.), . Morgan Kaufmann Publishers Inc.
- Dubberly, H., 2007. The Making of Knowledge Navigator.
- Gaver, W., 2012. What Should We Expect from Research Through Design?, in: Proceedings of CHI '12. ACM.
- Hagen, P., Robertson, T., 2009. Dissolving Boundaries: Social Technologies and Participation in Design, in: Proceedings of the 21st Australian Computer-Human Interaction Special Interest Group: Design: Open 24/7, OZCHI '09. ACM.
- Halskov, K., Hansen, N.B., 2015. The diversity of participatory design research practice at PDC 2002–2012. International Journal of Human-Computer Studies 74.
- Hardaker, C., 2010. Trolling in asynchronous computer-mediated communication. Journal of Politeness Research. Language, Behaviour, Culture 6.
- Jenkins, H., 2006. Fans, Bloggers, and Gamers: Exploring Participatory Culture. NYU Press.
- Kirby, D., 2010. The Future is Now Diegetic Prototypes and the Role of Popular Films in Generating Real-world Technological Development. Social Studies of Science 40, 41–70.
- Kvale, S., Brinkmann, S., 2009. Interview: Introduction til et håndværk. Hans Reitzels.
- Land Rover UK, 2014. Jaguar Land Rover introduces the 360 Virtual Windscreen. (accessed 6.4.17).
- Land Rover UK, 2014. Land Rover Reveals Transparent Bonnet Concept. (accessed 6.4.17).
- Li, C., Bernoff, J., 2011. Groundswell: Winning in a World Transformed by Social Technologies. Harvard Business Press.
- Mackay, W.E., Ratzer, A.V., Janecek, P., 2000. Video artifacts for design: Bridging the gap between abstraction and detail, in: Proceedings of the 3rd Conference on Designing Interactive Systems: Processes, Practices, Methods, and Techniques. ACM, pp. 72–82.
- Näkki, P., VTT, 2011. Social media for citizen participation: report on the Somus project. VTT, Espoo.
- Oostveen, A.-M., van den Besselaar, P., 2004. From Small Scale to Large Scale User Participation, in: Proceedings of the Eighth Conference on Participatory Design: Artful Integration: Interweaving Media, Materials and Practices - Volume 1, PDC 04. ACM.
- Phillips, W., 2015. This Is Why We Can't Have Nice Things: Mapping the Relationship Between Online Trolling and Mainstream Culture. MIT Press.
- Reyes, L.F.M., Finken, S., 2012. Social Media As a Platform for Participatory Design, in: Proceedings of the 12th Participatory Design Conference: Exploratory Papers Volume 2, PDC '12. ACM.
- Sanders, E.B.-N., Stappers, P.J., 2008. Co-creation and the new landscapes of design. CoDesign 4, 5–18.
- Simonsen, J., Hertzum, M., 2008. Participative Design and the Challenges of Large-scale Systems: Extending the Iterative PD Approach, in: Proceedings of PDC '08.
- Simonsen, J., Robertson, T., 2012. Routledge International Handbook of Participatory Design. Routledge.
- Sterling, B., 2013. Patently untrue. Wired UK. <http://www.wired.co.uk/magazine/archive/2013/10/play/patently-untrue> (accessed 6.4.17).
- Tognazzini, B., 1994. The “Starfire” video prototype project. ACM, pp. 99–105.
- Vines, J., Clarke, R., Wright, P., McCarthy, J., Olivier, P., 2013. Configuring participation: on how we involve people in design. ACM, p. 429.
- Vink, P., Imada, A.S., Zink, K.J., 2008. Defining stakeholder involvement in participatory design processes. Applied Ergonomics 39, 519–526.

Vistisen, P., 2016. Sketching with animation. Aalborg Universitetsforlag.

Ylirisku, S., Buur, J., 2007. Designing with Video. Springer.

Zimmerman, J., 2005. Video Sketches: Exploring

pervasive computing interaction designs. Pervasive Computing, IEEE 4, 91–94.

Appendix 1: <https://goo.gl/3FIPYI>

(accessed 6.4.17)